Danger feared from chemicals getting into bay
Jane Kay, Chronicle Environment Writer
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Chemicals found in household products like antibacterial soap and plastic bottles are found in sewage water that is discharged into San Francisco Bay, posing a threat to wildlife and humans, according to new data.

Sophisticated sewage systems treat biodegradable food, human waste and metals, but they are not designed to capture the thousands of tons of synthetic chemicals used to manufacture consumer products, say officials at the East Bay Municipal Utility District, who found evidence of potentially harmful substances in sewage from businesses and homes.

Chemical ingredients are leaching out of toothpaste, deodorant, canned food liners and vinyl and polycarbonate plastics. They pass through the municipal sewage plants virtually untreated, the experts say.

Over three months last year, EBMUD grabbed two dozen samples from sewage pipes leading from a veterinarian's office, a nail salon, a diaper service and a coin laundry, among other businesses, as well as from a medical clinic, a hospital and manufacturing plants. Samples also were collected from residences from Richmond south to Oakland. The results will be released today in a report by the Environmental Working Group, a nonprofit organization with offices in Oakland.

The inspectors found three types of chemicals -- phthalates, bisphenol A and triclosan. All are suspected of interfering with hormone systems of humans and wildlife. Phthalates are banned in some toys in San Francisco, and the state Legislature is considering a bill that would prohibit forms of the chemical in toys intended for children under 3.

Of 19 locations tested, 18 had sewage discharges containing at least one of the chemicals, and many had more than one.

Out of three tests on treated wastewater, all three samples contained phthalates, and two contained bisphenol A or triclosan.

"We're involved because we know that these compounds are out there, and we cannot treat them in the wastewater stream," said Charles Hardy, EBMUD spokesman. The utility is one of dozens of agencies -- including cities, counties and businesses -- that discharge treated sewage, storm water or other wastewater into the bay.

"Evidence shows that the chemicals are harmful to aquatic life and potentially to humans," Hardy said.

The locations that discharged chemicals into the sewage system aren't being made public because the discharges aren't illegal. There are no regulations on the amount of the three chemicals that can be sent to treatment plants.

The utility is asking its customers to stop using antibacterial soaps, which frequently contain triclosan, and other products containing harmful chemicals. The utility supports a ban on chemicals that have been shown to cause cancer, birth defects and reproductive damage to lab animals and have the potential to harm humans, Hardy said.

The Environmental Working Group's 30-page report, entitled, "Down the Drain," contains test results, chemical information and hints on products to avoid. The environmental group worked with the utility on selecting test locations and turned over a $20,000 grant from the San Francisco Foundation to defray lab costs.

As the issue of chemicals from consumer products and pharmaceuticals gains a higher profile among the public, chemical manufacturers are conducting their own studies. Phthalate-makers are working with the U.S. Environmental Protection Agency to test sludge in sewage treatment plants for the chemicals, according to Marian Stanley, a scientist with the industry's American Chemistry Council.

Based on industry studies of rainbow trout and organisms that live in the sediment, she said, "we have found that phthalates at the levels found in the environment are not toxic to aquatic life."

Those tests on algae, mussels, fish and birds have shown that the chemicals don't move up the food chain as predators eat plants and animals that contain the chemicals, Stanley said.

Yet EBMUD and other agencies face a challenge over what to do about the chemicals entering their treatment plants, said board member Doug Linney.

"The problem is that they're coming up with new chemicals faster than we can understand what they do to the environment," Linney said.

Taking the example of antibacterial soaps, he said: "They're just not necessary. It's a marketing thing. There's no reason to degrade our environment."
Online resources

Read the report from the Environmental Working Group:

www.ewg.org
Chemicals tested

Phthalates -- Plastic softener also found in cosmetics, cleaning products, inks and solvents. Linked to reproductive abnormalities in lab animals and alteration of hormone levels in humans.

Bisphenol A -- A building block of polycarbonate plastic, also used in liners of cans. Associated with an array of health problems in lab animals.

Triclosan -- An antimicrobial that is used in soaps, detergents, toothpaste, deodorant and plastic cutting boards. Shown to disrupt the thyroid gland in wild frogs and can be acutely toxic to some aquatic organisms.

Source: Environmental Working Group.
Problem Products

-- Perfumes and beauty products labeled "fragrance."

-- PVC/vinyl flexible plastic in food wraps, toys and shower curtains.

-- "Antibacterial" detergents and hand soap with triclosan.

-- Dibutyl phthalate (DBP) in nail polish.

-- Hard, clear polycarbonate plastic baby bottles and water bottles.

-- Canned food containing solid colored liners.

-- Plastic pet products, including toys and some water dishes.

-- Foam shoe insoles.

Source: Environmental Working Group

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http://sfgate.com/cgi-bin/article.cgi?f=/c/a/2007/07/11/MNGFVQUHC21.DTL

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